

Amendments to the Claims:

This listing of claims will replace all prior versions and listings of claims in the application:

Listing of Claims:

- 1 1. (Currently amended) A method of providing a checkpoint/restart facility
2 in conjunction with reading and writing data files across a plurality of ~~plurality of~~
3 computer systems, wherein:
4 the plurality of computer systems comprises:
5 a first computer system executing a first program, and
6 a second computer system containing a disk system and executing a
7 second program;
8 the first computer system and the second computer system are heterogeneous
9 computer systems;
10 said method comprising:
11 A) checkpointing a current status of the first program resulting in a first set of
12 checkpoint status information;
13 B) transmitting a first checkpoint request that includes the first set of checkpoint
14 status information from the first program over a first session to the second
15 program;
16 C) checkpointing the second program resulting in a second set of checkpoint
17 status information in response to receiving the first checkpoint request;
18 D) writing the first set of checkpoint status information and the second set of
19 checkpoint status information to a first checkpoint file on the disk system;
20 E) transmitting a first checkpoint response from the second program over the first
21 session to the first program after the writing in step (D) is complete;
22 F) checkpointing the first program resulting in a third set of checkpoint status
23 information;
24 G) transmitting a second checkpoint request that includes the third set of
25 checkpoint status information from the first program over the first session
26 to the second program;
27 H) checkpointing the second program resulting in a fourth set of checkpoint
28 status information in response to receiving the first checkpoint request
29 transmitted in step (G);
30 I) writing the third set of checkpoint status information and the fourth set of
31 checkpoint status information to a second checkpoint file on the disk
32 system;
33 J) transmitting a second checkpoint response from the second program over the
34 first session to the first program after the writing in step (I) is complete;
35 K) transmitting a first rollback request from the first program over the first
36 session to the second program;

- 37 L) reading the third set of checkpoint status information and the fourth set of
38 checkpoint status information from the second checkpoint file in response
39 to receiving the first rollback request transmitted in step (K);
40 M) rolling back the second program utilizing the fourth set of checkpoint status
41 information read in step (L);
42 N) transmitting a first rollback response from the second program over the first
43 session to the first program that includes the third set of checkpoint status
44 information read in step (L); and
45 O) rolling back the first program utilizing the third set of checkpoint status
46 information in response to receiving the first rollback response in step
47 (N)..

Claim 2 (Canceled)

Claim 3 (Canceled)

- 1 4. (Previously amended) The method in claim 1 wherein:
2 the first checkpoint file and the second checkpoint file are a same file.
3

Claim 5 (Cancelled)

- 1 6. (Previously amended) The method in claim 1 which further comprises:
2 P) transmitting a third checkpoint request that includes the first set of checkpoint
3 status information from the first program over a second session to a third
4 program executing in a third computer system;
5 Q) checkpointing the third program resulting in a fifth set of checkpoint status
6 information in response to receiving the third checkpoint request;
7 R) writing the first set of checkpoint status information and the fifth set of
8 checkpoint status information to a third checkpoint file; and
9 S) transmitting a third checkpoint response from the third program over the
10 second session to the first program after the writing in step (R) is
11 complete.

Claim 7 (Cancelled)

Claim 8 (Cancelled)

- 1 9. (Original) The method in claim 1 wherein:
2 there are plurality of sessions open between the first program and the second
3 program for accessing a corresponding plurality of files by the second
4 program; and
5 the checkpointing in step (C) flushes all of the plurality of files and includes
6 checkpoint information for all of the plurality of files in the second set of
7 checkpoint information.

Claims 10-20 (Cancelled)